

Increasing Community Safety

Put in the simplest terms, all of NIJ's research programs and projects are geared to making lives safer and communities better places to live. For example, NIJ's support for studies to better understand criminal behavior led to groundbreaking strategies for prosecuting career criminals and guidelines for making pretrial release decisions that are modeled after research.

In 2004, NIJ supported research that directly or indirectly improves safety for citizens and law enforcement personnel—from risk assessments for battered women to police interventions that address gang and gun violence, from cutting-edge scanners for screening at schools and other public places to body armor standards. Some of these programs are described below.

Saving women's lives

Between 40 and 51 percent of women who are murdered in the United States are murdered by their husband or intimate partner.³¹ In contrast, approximately 6 percent of men murdered are killed by their intimate partners.³²

In the mid-1990's, NIJ began building a portfolio of research on violence against women designed to save women's lives by increasing knowledge and understanding of intimate partner homicide. Much of this research was conducted in conjunction with the U.S. Department of Justice's Office on Violence Against Women.

In November 2003, a special issue of the *NIJ Journal* was devoted exclusively to studies on this subject (see "For more information," page 26). That issue became one of the most frequently requested NIJ publications in 2004. Articles include descriptions of NIJ-funded research that found that women are most vulnerable immediately after they leave a relationship and are more likely to be murdered if they have been severely attacked by their intimate partner, especially if the attacks have escalated in severity. The research also shows that men who murder their intimate partners are more likely to use alcohol heavily and to use drugs. Gun ownership is also a risk factor.

³¹ Brock, K., "When Men Murder Women: An Analysis of 2002 Homicide Data," Washington, DC: Violence Policy Center, September 2004, available at <http://www.vpc.org/studies/wmmw2004.pdf>.

³² Fox, J.A., and M.W. Zawitz, *Homicide Trends in the U.S., "Trends by Gender,"* see statistical table, "Victim-Offender Relationship by Victim Gender, 1976–2002," Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics, updated September 2004, available at <http://www.ojp.usdoj.gov/bjs/homicide/gender.htm>.

Most women who are murdered by their intimate partners have experienced one or more of several risk factors, such as being choked. Identifying which battering cases are most likely to lead to further injury could help women, their advocates, and the courts take protective action. Many criminal justice agencies use formal mechanisms such as checklists and assessment questionnaires to identify these high-risk cases. But how accurate are the assessment instruments? Can they really predict future harm?

To evaluate the accuracy of risk assessment tools, in 2000 NIJ initiated a study of four commonly used assessment instruments. Researchers at Johns Hopkins University completed the study in 2004. One instrument, the Danger Assessment Scale, appeared to be the most accurate.³³

About half the time, abused women's perceptions that they are at high risk for additional violence are accurate. The rest of the time, they underestimate the threat of lethality or diminish the severity of the violence being perpetrated against them.³⁴ Thus, the researchers concluded that although victims' perceptions were important predictors of risk of reassault, they were not good enough to rely upon. Systematic risk assessment proved more reliable.

The women in the study told the researchers that the process of completing the risk assessment was "an eye-opening experience," leading them to take action to protect themselves from further abuse. This suggests the need for future research on whether risk assessments increase victims' self-protective actions.

For more information

- Campbell, J.C., D. Webster, J. Koziol-McLain, C.R. Block, D.W. Campbell, F. Gary, J.M. McFarlane, C.J. Sachs, P.W. Sharps, Y. Ulrich, S.A. Wilt, J. Manganello, X. Xu, J. Schollenberger, and V. Frye, "Assessing Risk Factors for Intimate Partner Homicide," *NIJ Journal* 250 (November 2003): 14–19, available at <http://www.ncjrs.org/pdffiles1/jr000250e.pdf>.

³³ Researchers assessed the accuracy of four instruments by administering them randomly to 1,307 battered women who sought help against a violent partner in various ways—calling 911, filing for a protective order, going to a shelter or hospital emergency room, or seeking domestic violence services at New York's Safe Horizon community offices. Six months later, participants were queried about all forms of abuse and violations of court orders since the risk assessment. They were also asked about protective measures and offender sanctions. Criminal records were checked 1 year after the baseline interview. The researchers' final report to the National Institute of Justice will be released through the National Criminal Justice Reference Service in 2005.

³⁴ Campbell, J.C., D. Webster, J. Koziol-McLain, C.R. Block, D.W. Campbell, F. Gary, J.M. McFarlane, C.J. Sachs, P.W. Sharps, Y. Ulrich, S.A. Wilt, J. Manganello, X. Xu, J. Schollenberger, and V. Frye, "Assessing Risk Factors for Intimate Partner Homicide," *NIJ Journal* 250 (November 2003): 16.

What is action research?

Action research occurs when researchers and their practitioner partners use data to develop strategies to solve local crime problems. To address an urgent problem—such as gang violence within a particular neighborhood—the researchers take a lead role in collecting and analyzing data to understand the patterns of the crime problem and potential sources. They remain actively involved during program implementation, provide feedback to implementers to refine and improve interventions, and ultimately determine how well the program achieved its goals.

³⁵ For information about a prominent source that assembles research evidence, see Petrosino, A., D.P. Farrington, and L. Sherman, "The Campbell Collaboration: Helping to Understand 'What Works,'" *NIJ Journal* 251 (July 2004): 14–17, available at <http://ncjrs.org/pdffiles1/jr000251d.pdf>.

³⁶ A rigorous evaluation found that the Boston project was associated with a 63-percent decrease in youth homicides per month, a 32-percent decrease in shots-fired calls for service per month, a 25-percent decrease in gun assaults per month, and a 44-percent decrease in the number of youth gun assaults per month in the highest risk district (Roxbury). See Kennedy, D.M., A.A. Braga, A.M. Piehl, and E.J. Waring, *Reducing Gun Violence: The Boston Gun Project's Operation Ceasefire*, Research Report, Washington, DC: U.S. Department of Justice, National Institute of Justice, September 2001 (NCJ 188741), available at <http://www.ncjrs.org/pdffiles1/nij/188741.pdf>.

³⁷ *Ibid.*, see exhibit 2–2, p. 58.

- Campbell, J.C., D. Webster, J. Koziol-McLain, C.R. Block, D.W. Campbell, M.A. Curry, F. Gary, J.M. McFarlane, C.J. Sachs, P.W. Sharps, Y. Ulrich, S.A. Wilt, J. Manganello, X. Xu, J. Schollenberger, V. Frye, and K. Laughon, "Risk Factors for Femicide in Abusive Relationships: Results From a Multisite Case Control Study," *American Journal of Public Health*, 93(7) (2003): 1089–1097.

Making neighborhoods safer

After several decades of helping law enforcement agencies develop better community crime prevention, NIJ is now leading the way toward evidence-based policies and practices.³⁵ The agency is reaching out to help cities develop focused problem-solving strategies based on best practices identified by research. This promotes researcher-practitioner partnerships to address problems at the local level.

Project Safe Neighborhoods, a national initiative involving NIJ and other U.S. Department of Justice agencies, builds on findings from action research that NIJ has been conducting since the mid-1990's. Projects in NIJ's action-research portfolio used data to pinpoint the exact nature of the problem, developed a strategic plan to address the problem, implemented the strategic plan, and then adjusted the strategy as needed.

Action research to reduce gun violence. One of NIJ's most successful action-research projects took place in Boston, Massachusetts, between 1995 and 1998. Called Operation Ceasefire, the Boston project dramatically reduced juvenile and youth homicides—by 63 percent overall.³⁶ For several months during the 2-year period of the study, youth homicides in Boston fell to zero.³⁷

Other problem-solving projects sponsored by NIJ have experimented with approaches to reducing gun violence. In Indianapolis, Indiana, for example, researchers compared two strategies: (1) police stopping cars at random and confiscating illegal guns, and (2) police stopping only suspicious cars. The first strategy resulted in a higher number of confiscated guns, but the second strategy resulted in much lower gun crime. Even though police confiscated fewer

Edmund F. McGarrell
Director, School of Criminal Justice,
Michigan State University

“[A]ction-research partnerships linking practitioners and researchers in problem-solving efforts ... are changing practice and making communities safer, while at the same time generating a new understanding of crime and criminal justice. NIJ deserves much credit as the catalyst for these partnerships.”

guns during the second strategy, gun crime went down. The lesson from Indianapolis: Police can reduce gun crime when they take away guns from the “right” people—potential criminals—and deter them from carrying guns.

Another problem-solving initiative sponsored by NIJ was the St. Louis (Missouri) Consent-to-Search Program, whereby police sought parental permission to search and seize guns from juveniles in their homes. The impact on gun crime was not as clear cut as the Indianapolis experience due to changes in the police department and resulting changes in program implementation. But one of the main lessons from St. Louis is that novel problem-solving approaches (police asking parents to allow the police to search their child’s room) can work.

Project Safe Neighborhoods. Launched in 2001, Project Safe Neighborhoods (PSN) addresses gun violence by forming or strengthening strategic partnerships among Federal, State, and local agencies, under the auspices of the local United States Attorney. The five core elements of PSN are:

- Partnerships that include local, tribal, State, and Federal law enforcement; local, State, and Federal prosecutors; probation and parole officials; researchers; and community groups, such as faith-based organizations.
- Strategic planning through collection and analysis of data to identify the precise nature of the gun crime problem.
- Training for all participants.
- Outreach to involve the community and to let potential offenders know that they will “do hard time for gun crime.”
- Accountability that defines success through actual outcome data.

Because each jurisdiction is unique, PSN partners tailor these elements to suit the particular needs in their district.

In 2004, NIJ staff and grantees provided technical assistance and research support to all 94 Project Safe Neighborhood sites. Training was designed to help PSN partners develop strategic problem-solving approaches to address endemic local gun crime problems. In addition, the NIJ-funded research grantees will conduct case studies of promising intervention strategies and comprehensive case studies assessing the implementation and impacts of PSN in selected sites.

For more information

- Kennedy, D.M., A.A. Braga, A.M. Piehl, and E.J. Waring, *Reducing Gun Violence: The Boston Gun Project's Operation Ceasefire*, Research Report, Washington, DC: U.S. Department of Justice, National Institute of Justice, September 2001 (NCJ 188741), available at <http://www.ncjrs.org/pdffiles1/nij/188741.pdf>.
- McGarrell, E.F., S. Chermak, and A. Weiss, *Reducing Gun Violence: Evaluation of the Indianapolis Police Department's Directed Patrol Project*, Research Report, Washington, DC: U.S. Department of Justice, National Institute of Justice, November 2002 (NCJ 188740), available at <http://www.ncjrs.org/pdffiles1/nij/188740.pdf>.
- Decker, S., and R. Rosenfeld, *Reducing Gun Violence: The St. Louis Consent-to-Search Program*, Research Report, Washington, DC: U.S. Department of Justice, National Institute of Justice, November 2004 (NCJ 191332), available at <http://www.ncjrs.org/pdffiles1/nij/191332.pdf>.
- Project Safe Neighborhoods Web site at <http://www.psn.gov>.

Technology testing and evaluation

NIJ's Office of Science and Technology oversees research and development of new technology and technical standards to improve the safety of citizens, communities, and law enforcement personnel. Several projects in 2004 showed significant promise for easier, more effective detection of illegal weapons or entry.

Making schools safer. As part of NIJ's research and development agenda to make schools safer, NIJ worked with the New York City Police Department's School Safety Division to test a walk-through weapons detection portal in a Manhattan high school. The portal, called "Secure Scan 2000," uses new magnetometer technology to "see" very small metal objects (such as razor blades, which were being used in gang-based slashings at the school).³⁸ In 2004, demonstration of an improved version of the portal at a Bronx, New York, high school reduced the level of false or nuisance alarms by 30 percent and the number of slashings by half. The research, development, and testing of this new portal for schools could lead to major improvements in the metal detector portals currently used in most airports and courthouses.

Other technology tested as part of NIJ's safe schools initiative is also expected to have wider application. In three New Jersey schools, for example, NIJ installed and evaluated a system that has improved the school's ability to ensure that the person picking up a student is authorized to do so. The system uses the iris of a person's eye for identification. During 9,400 iris scanings at the schools, there were no known false positives or other misidentifications. The system made accurate identifications and unlocked the door 78 percent of the time. Failures that occurred were due to problems with lighting (especially on sunny days), with someone improperly lining up with the scanner (16 percent of failures), or with persons who were not enrolled in the program using the scanner (6 percent of failures).

Making lives safer with biometrics. For several years, NIJ has been expanding understanding of biometric technology and exploring how to use it to improve public safety. Biometric technologies that scan or measure unique physical characteristics (such as the iris scan experiment) are more reliable than traditional identifiers such as drivers' licenses and identification or swipe cards. Because the systems are computer-based, they can provide records that other methods cannot. But more importantly, biometrics requires no user name, password, or series of numbers to confirm identity.

³⁸ Secure Scan 2000 was developed by the U.S. Department of Energy's Idaho National Engineering and Environmental Laboratory, with funding provided by NIJ.

NIJ also plays a lead role in research and development concerning finger imaging and face recognition technology. In 2004, for example, NIJ evaluated 13 fingerprint identification algorithms in response to a requirement of the Patriot Act to evaluate the FBI's Integrated Automated Fingerprint Identification System (IAFIS), which contains fingerprint records for more than 47 million subjects.

NIJ participates in several joint biometric efforts, including the U.S. Department of Justice's Biometrics Cooperative and the government-wide International Committee for Information Technology Standards, which has issued three biometrics standards: iris image, finger image, and face recognition formats for data interchange.

For more information

- "Cause for Alarm," *TechBeat*, Winter 2003: 2–3, available at <http://www.nlectc.org/techbeat/winter2003/SafeSchWint03.pdf>.
- Biometrics catalog at <http://www.biometricscatalog.org>.
- On the Integrated Automated Fingerprint Identification System, see <http://www.fbi.gov/hq/cjisd/iafis.htm>.